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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,848	12/12/2001	Barnes Cooper	ITL.0675US	1071

7590

03/08/2004

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EXAMINER

CABRERA, ZOILA E

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

14

Office Action Summary

Application No.

10/020,848

Applicant(s)

COOPER, BARNES

Examiner

Zoila E. Cabrera

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☒ Claim(s) 31 and 32 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Final Rejection

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The rejection under 102 regarding claims 1-5, 8, 11-15, 18, 21-25 and 28 is maintained.

The rejection under 103 regarding claims 6-7, 9, 10, 16-17, 19, 20, 26-27 and 29-30 is maintained.

New claims 31-32 are presented for consideration.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 8, 11-15, 18, 21-25 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by **Kung (US 6,636,910)**.

Claims 1, 11, and 21 are so broad as to read in **Kung**. Regarding claims 1, 11 and 21 **Kung** discloses a method and a system comprising:

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- detecting that a processor's frequency has changed in response to processor cooling (Col. 1, lines 55-62); and generating an interrupt in response to the detection of the frequency change (Col. 1, lines 62-67, i.e., The CPU *then* performs a corresponding interrupt processing program to deal with related actions **after** the peripheral processor is reduced to the second operating velocity or second predetermined frequency); and determining whether the performance state of the processor is going to be a lower performance state or a higher performance state (Col. 3, lines 1-10, i.e., when the temperature is lower than the first predetermined temperature, the CPU operates too slowly, *or lower performance*. Therefore, it is necessary to increase the operational speed for achieving maximum performance, *or higher performance*.).

As for claims 2-5, 8, 12-15, 18, 22-25, and 28, **Kung** further discloses,

- providing an interrupt to an operating system (Col. 1, lines 64-67);
- reading the performance state of the processor in response to the interrupt (Col. 2, lines 61-67);
- determining a new performance state (Col. 3, lines 63-67 – Col. 4, lines 1-2);
- scheduling a bandwidth allocation (Col. 2, lines 52-56; Col. 3, lines 6-10 and lines 38-41);
- detecting a high temperature or a low temperature interrupt and reading the processor performance state in response to the detection of a high temperature or a low temperature interrupt (Col. 2, lines 61-67; Col. 1, lines 62-67; Col. 3, lines 1-10 and lines 63-67; Col. 4, lines 1-2);

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-7, 10, 16-17, 20, 26-27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kung** as applied to claims 1, 11 and 21 above, and further in view of **Inoue (EP 1085399 A1)**.

Kung discloses the limitations of claims 1, 11, and 21 above but fails to specifically disclose the limitations of claims 6-7, 16-17, 26-27. However, **Inoue** discloses such limitations as follows:

- setting up a periodic timer (Fig. 3, element 25);
- monitoring the processor temperature at periodic intervals (Fig. 4, and 7, step S1; Figs. 6 and 8, Step T1);
- using hardware controlled throttling (Col. 9, lines 46-49).

Therefore, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to combine the teachings of **Kung** with **Inoue** because It would provide with an improved temperature controller that efficiently monitors the temperature of an electronic apparatus by periodically monitoring the status of the device.

Claims 9, 19 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kung** as applied to claims 1, 11 and 21 above, and further in view of **Moriyama (US 6,510,400)**.

Kung discloses the limitations of claims 1, 11, and 21 above but fail to specifically disclose, regarding claims 9, 19 and 29, detecting a frequency change includes detecting a processor phase locked loop event. However, **Moriyama** discloses detecting a processor phase locked loop event (Col. 5, lines 6-10). Therefore, it would have been obvious to a person of the ordinary skill in the art at the time the invention was made to combine the teachings of **Kung** with **Moriyama** because it would provide with a SWEEP function for gradually varying the clock frequency (Col. 5, lines 7-11).

Response to Arguments

4. Applicant's arguments filed December 5, 2003 have been fully considered but they are not persuasive. Applicant contends that Kung fails to teach or suggest the determination as to the performance state of the processor to be a lower or a higher performance state. Examiner disagrees because Kung discloses, Col. 3, lines 1-10, when the temperature is lower than the first predetermined temperature, the CPU operates too slowly, *or lower performance*. Therefore, it is necessary to increase the operational speed for achieving maximum performance, *or higher performance*. There is a determination taking place by increasing the speed to obtain maximum performance when it is operating too slowly.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **changing first** the processor's frequency or **the processor's voltage** based on the performance state of the processor) are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Allowable Subject Matter

5. Claims 31-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

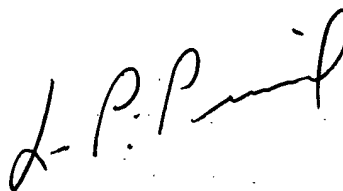
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Conclusion

6. Any inquiry concerning communication or earlier communication from the examiner should be directed to Zoila Cabrera, whose telephone number is (703) 306-4768. The examiner can normally be reached on M-F from 8:00 a.m. to 5:30 p.m. EST (every other Friday).

If attempts to reach the examiner by phone fail, the examiner's supervisor, Leo Picard, can be reached on (703) 308-0538. Additionally, the fax phones for Art Unit 2125 are (703) 872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 305-9600.

Zoila Cabrera
Patent Examiner
3/4/04



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